

REMARKS

Claims 1-14 are pending in the application. Claim 1 was amended to more particularly point out and distinctly claim the present invention. Claims 8, 13 and 14 were amended to address the Examiner's claim objections. Claims 5 and 14 were amended to improve their form. Claim 12 was rewritten in independent form. The title of the invention was amended to be more descriptive.

No new matter was entered. The newly added phrase in claim 1, "expressed in terms of a number of dots per unit area," is supported on at least page 11, lines 14-16 of the specification. The newly added phrase in claim 1, "a correction value based on differences between the detection values and corresponding target values of the plurality of pattern segments, the correction value being weighted in accordance with the detection values of the plurality of pattern segments," is supported on at least page 22, lines 20-24 of the specification, and in Equations (1), (5) and (7) of the specification.

Disclosure Objection

The disclosure objection is respectfully traversed. Although the summary section primarily repeats the claim language, the claim language constitutes a concise summary of the invention, and thus it is not improper to include claim language in the summary section.

Prior Art Rejections

Claims 1, 3, 10, 13 and 14 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,336,008 (Nakazato, et al.), hereafter, "Nakazato."

Claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakazato in view of U.S. Patent No. 6,564,021 (Nakai, et al.).

Claims 4, 7 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakazato in view of U.S. Patent No. 5,436,705 (Raj). For at least the reasons set forth below, withdrawal of all outstanding rejections as they relate to the amended claims is respectfully requested.

1. Nakazato

Nakazato discloses changing the density of a pattern by selecting a developing bias voltage to apply different amounts of toner to dots of patch images (PI). The number of dots in the patch images are fixed when performing the process in Nakazato. Thus, the number of dots per unit area is fixed when performing the process in Nakazato. See, for example, column 22, lines 31-38 of Nakazato which reads as follows (underlining added for emphasis):

Further, while the first patch images are each a solid image whose area ratio is 100% in the preferred embodiment above, an image whose area ratio is approximately 80% or more may be used instead of using a solid image. Even when such an image is used as the first patch images, a similar effect to that promised when solid images are used is obtained. The term "area ratio" refers to a ratio of dots to the area of a patch image as a whole.

Nakazato does not disclose or suggest that its process is used to adjust the "area ratio." Instead, the area ratio is fixed, and then a developing bias voltage applies different amounts of toner to the dots defined by the area ratio. That is, although the area ratio can be changed, it remains fixed when performing the disclosed process.

2. Patentability of independent claim 1 over Nakazato

Amended claim 1 recite, in part, the following limitations (underlining added for emphasis):

1. An image-forming apparatus comprising:

at least one image-forming section that has an exposing unit and a developing unit, said at least one image-forming section printing an image of a density detection pattern having a plurality of pattern segments of different duties expressed in terms of a number of dots per unit area, the image being printed on a print medium under a predetermined printing condition;

a density detector that outputs detection values indicative of densities of the plurality of pattern segments printed on the print medium; and

a controller that determines a correction value based on differences between the detection values and corresponding target values of the

plurality of pattern segments, the correction value being weighted in accordance with the detection values of the plurality of pattern segments,
and being used to modify the printing condition.

In the outstanding Office Action, the Examiner equates different duties with different densities. However, these concepts are different. Claim 1 now more explicitly describes that the different duties refer to the number of dots per unit area.

As discussed above, Nakazato does not disclose or suggest using its disclosed process to make any changes to the number of dots per unit area (expressed in Nakazato as the "area ratio"). Nakazato's process is used to control the amount of toner delivered to each dot, but that is not the same, or equivalent to, the claimed different duties, as now more explicitly recited. Furthermore, since Nakazato does not have a plurality of pattern segments of different duties expressed in terms of a number of dots per unit area, Nakazato inherently cannot have anything equivalent to the claimed "correction value."

In sum, there are numerous ways to control image density. Nakazato's approach is completely different than the claimed approach. Nor do any of the prior art references of record make up for the above-noted deficiencies in Nakazato.

Claim 1 is therefore believed to be patentable over Nakazato.

3. Patentability of dependent claims 2-11 and 13-14

These dependent claims are believed to be patentable over the applied references for at least the reason that they are dependent upon allowable base claim 1 and because they recite additional patentable elements.

4. Patentability of claim 12

This claim was indicated by the Examiner as being allowable if rewritten in independent form. Accordingly, this claim is now believed to be allowable.

Conclusion

Insofar as the Examiner's rejections were fully addressed, the instant application including all pending claims is in condition for allowance. A Notice of Allowability of all pending claims is therefore earnestly solicited.

Respectfully submitted,

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